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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/743,567	12/22/2003	Allan T. Koshiol	279.662US1	5068

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EXAMINER

HOLMES, REX R

ART UNIT	PAPER NUMBER
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3762

MAIL DATE	DELIVERY MODE
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08/27/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/743,567

Applicant(s)

KOSHIOL ET AL.

Examiner

Rex Holmes

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>5/14/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-32 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-9, 15, 17-22 and 30-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Snell et al. (U.S. Pat. 5,431,691 hereinafter "Snell").
4. Regarding claims 1-3, 17-19 and 21, Snell discloses a implantable medical device that has an input, a sampler circuit, a clock circuit, a circular rollover buffer that records and rollover over a set time, a controller that puts the data into memory, includes time stamps and transmits the data to an external device when the buffer is full making the process happen in substantially real time (Col. 14; Col. 16, ll. 24-59). The controller further generates markers that include a marker code, a timestamp and additional data (e.g. Figs. 9-20; Col. 25, ll. 35-57).
5. Regarding claims 4 and 22, Snell discloses that it includes a signal channel identifier, a time stamp, and different sampled values (See Figs. 9-20).

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6. Regarding claims 5 and 20, Snell discloses a telemetry circuit that can send data whenever programmed to send the data and thus the data can be sent in two time slots (Col. 6, ll. 34-44).
7. Regarding claim 6, Snell discloses that the inputs are coupled to a plurality of electrodes placed throughout the heart (e.g. Fig. 1).
8. Regarding claim 7, Snell discloses that the system includes a physiological sensor (26).
9. Regarding claim 8, Snell discloses that the external device includes a display (80) and a processor and memory to store and receive the sampled values (76).
10. Regarding claim 9, Snell discloses a device that is operable to transmit the data in substantially real-time (Col. 6, ll. 34-44).
11. Regarding claim 15, Snell discloses that the external programmer can be connected to an external network (Col. 14, ll. 28-37).
12. Regarding claim 31, Snell discloses that the signal may include a timestamp from the system epoch (Col. 25, ll. 1-13).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 10, 16, 23, 29 and 32 rejected under 35 U.S.C. 103(a) as being unpatentable over Snell.

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15. Regarding claims 10, 29 and 32, Snell discloses a implantable medical device that has an input, a sampler circuit, a clock circuit, a circular rollover buffer that records and rollover over a set time, a controller that puts the data into memory, includes time stamps and transmits the data to an external device when the buffer is full making the process happen in substantially real time, but Snell fails to disclose that the timer of the buffer rolls over every one hundred milliseconds. It is know in the art that there are different buffer sizes and timers are used in storage devices and that it would have been obvious to one having ordinary skill in the art at the time the invention was made to have changed the size of the buffer to be about 100ms or 2 minutes to provide the predictable results of a buffer with a smaller recording window for faster reading and writing.

16. Regarding claim 16, Snell discloses that the implantable device is a pacemaker, but fails to disclose that it includes a cardioverter/defibrillator. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the pacemaker as taught by Snell, to include a cardioverter/defibrillator since it was known in the art that defibrillators are routinely incorporated into pacemakers and would provide the predictable results of a pacemaker incorporated with a defibrillator.

17. Claims 11-14 and 24-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Snell as applied to claims 1-9 and 19-22 above, and further in view of McClure et al. (U.S. Pat. 6,161,043 hereinafter "McClure").

18. Regarding claims 11, 24 and 28, Snell discloses the claimed device as disclosed above, but Snell fails to disclose that the data is compressed and the type of data

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compression that done on the data. However, McClure discloses an implantable device with a circular buffer and a data compression system in an implantable device and a data decompression system in an external device (ABSTRACT; Cols. 3-4). Further McClure discloses that the device is adapted to be transmitted in real-time directly to an external programmer to reduce bandwidth for downloading the information (Col. 3, ll. 46-52; Col. 15, ll. 44-53). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device as taught by Snell, with the compression as taught by McClure, since such a modification would provide the device with data compression for providing the predictable results of smaller data and faster data transmission.

19. Regarding claims 12-14 and 25-27, Snell in view of McClure discloses data compression in an implantable device, but fails to disclose that the type of compression is amplitude, sampling rate reducing, or Huffman encoding. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the compression as taught by Snell in view of McClure, with amplitude, sampling rate reducing, or Huffman encoding since it was known in the art that there are various types of sampling algorithms that can be used to compress data and each provide the predictable result of compressed data to decrease bandwidth and increase the speed of data transmission.

20. Regarding claim 29, Snell in view of McClure discloses a implantable medical device as discussed in detail above, however Snell in view of McClure does not disclose that the external device displays a baseline value when communication link is lost

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between the implantable device and the external device. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the external device as taught by Snell in view of McClure, a display that show a baseline value when communication is lost since it was known in the art that when communication is lost no data is being sent and thus no values are known. For the safety and reliability of the device a baseline value should be shown, so that the user realizes that communication has been lost and does not rely on false data.

Conclusion

21. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rex Holmes whose telephone number is 571-272-8827. The examiner can normally be reached on M-F 8:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on 571-272-4955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Rex Holmes
Examiner
Art Unit 3762



George Evanisko
Primary Examiner
Art Unit 3762

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